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SO MUCH TO DO, SO LITTLE TIME: CARE FOR THE SOCIALLY DISADVANTAGED AND THE 15-MINUTE VISIT

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Abstract

There is much to do in primary care and little time to do it. Currently, primary care delivery is organized around visits, often 15 minutes or less, during which much is expected of clinicians. This includes establishing partnerships with patient and families; addressing acute and chronic biomedical and psychosocial problems; prevention, care coordination; and ensuring informed decision-making that respects patients' needs and preferences. Visit-based care discriminates against socially disadvantaged patients, who often require more time due to complex health care needs and the challenge of establishing partnerships and communicating across chasms of race, ethnicity, education, language, and culture. Rushed visits exacerbate disparities in health care due to competing demands, miscommunications and activation of unconscious physician stereotypes. Addressing health care disparities requires radical transformation in the structure and financing of primary care and the roles of the health care team members and patients. One such innovation, the patient-centered medical home, organizes care around patients' needs, not visits. Thus, face-to-face visits and physician-centered care are supplanted by team-based care that relies on multiple communication modalities, expanded health information technology, population management, culturally-sensitive outreach and follow-up, and coaching patients to assume more active roles in care. Implementation requires payment reform that allocates resources based on the true costs of providing high quality care to socially disadvantaged patients. Ensuring success will require physician leadership and training in new care models, transformation in primary care culture, and redesign of care around the needs of patients, particularly those needing care the most.

There is so much to do in primary care and so little time to do it. During 15-minute visits,¹ physicians are expected to form partnerships with patients and families, address complex acute and chronic biomedical and psychosocial problems, provide preventive care, coordinate care with specialists, and ensure informed decision-making that respects patients' needs and preferences. While this is a challenging task in straightforward visits, it is nearly impossible when caring for socially disadvantaged patients with complex biomedical and psychosocial problems and multiple barriers to care. Consider the following scenario.

Mrs S is a 52-year old female housekeeper with poorly controlled diabetes, hypertension and obesity who missed her last two visits due to job conflicts. She hasn't reached her annual

insurance deductible and pays for the visit out of pocket. She speaks limited English and the receptionist translates. Dr M explores her complaints of fatigue, daily headaches, back pain and conflict with her husband following his job loss. Dr M conducts a thorough medical history and physical exam and concludes that her poorly controlled diabetes, night shifts, work, and depression are contributing to her symptoms. He recommends mental health counseling, but Mrs S declines. Dr M recommends an antidepressant and adds 2 new medications for her diabetes and blood pressure and reviews their purposes and side effects. Mrs S politely acquiesces, knowing she cannot afford them and doubting their benefit. The receptionist interrupts Dr M to tell him he is behind and he quickly concludes the visit. Mrs S leaves the office still worried about her health and costs of care. Because the visit takes 30 minutes, her office fee does not fully cover visit costs. Dr M despairingly notes that none of Mrs S's preventive or chronic disease quality measures are at goal. He debates whether to discharge her from his practice for nonadherence to avoid being penalized under pay-for-performance.

As illustrated, constraining care to 15-minute visits for socially disadvantaged patients² virtually ensures the perpetuation of health care disparities.^{2,3} Socially disadvantaged patients, often referred to as vulnerable or underserved, are defined as groups who because of shared social characteristics are at higher risk for multiple risk factors.³ They include members of racial and ethnic minority groups and persons with low literacy and low socioeconomic status, among others.⁴ These groups, although distinct, overlap considerably.⁵

In this perspective, we illustrate how the 15-minute office visit discriminates against socially disadvantaged patients (and other patients with high needs) and propose fundamental reform in primary care structure and payment to address the problem.

SO LITTLE TIME

The average office visits in the U.S. lasts about 16 minutes,⁶ not enough time to effectively address multiple complex problems.⁷ Typically, five minutes is spent on one problem and a minute or two on the remainder.⁸ Providing all recommended preventive and chronic disease care takes more far more time than can be provided during an average of two adult primary care visits per year.⁹ To provide guideline-concordant care, a physician caring for a usual panel of patients would need to spend 35 hours on preventive health care during a typical week,¹⁰ another 50 hours on patients' chronic care needs,¹¹ and unknown hours for acute care –in addition to eight hours physicians currently spend on patient care outside of office visits.¹² These visit constraints severely limit informed decision making⁷ and confirmation of patient understanding,¹³ and commonly result in omission of discussion of adverse medication effects and costs.^{14,15} For socially disadvantaged patients, who more commonly have multiple, complex, biomedical and psychosocial problems, care is worse.^{14,15}

SO MUCH TO DO

Caring for socially disadvantaged patients poses unique challenges requiring more time and greater team work (Table 1).¹⁶ Communicating across differences in language, culture, and health literacy takes time.¹⁷⁻²¹ Socially disadvantaged patients experience worse physical²²⁻²⁴ and mental²⁵⁻²⁷ health, including more impairments in vision, hearing, and cognition that slow communication.²⁸

Review of the key parts of the office visit illustrates the key challenges of caring for these patients during 15-minute visits.²⁹ Initiating the visit involves establishing rapport and identifying the reasons for the visit. Achieving rapport across race, ethnicity, and educational level can be challenging.^{30,31} Eliciting all the reasons for the visit and negotiating an agenda may take longer due to more concerns,^{16,32} symptoms,²⁸ and illnesses.³³ Patients with low health literacy may not recognize key symptoms as readily.^{34,35} Time pressures may

undermine physician empathy,³⁶ undermining patient trust³⁷ – particularly for marginalized patients.³⁸

Gathering information about the illness, including key symptoms and psychosocial context, is more time-consuming because of more symptoms, more complex illnesses³⁹ and greater psychosocial stress.^{40,41} Exploration of the patients' perspective is critical to establishing partnership and understanding patients' beliefs, but is also more time-consuming across socio-cultural distance.⁴²

Physical examination may also take longer due to greater illness burden and disabilities that slow the process.²⁸ Preventive care involving disrobing (e.g., Pap smears, breast and rectal exams) is less likely to happen.^{43,44}

Discussion of diagnosis and treatment involves exchange of illness-related information, confirmation of patient understanding,⁴⁵ and complex decision making and promotion of behavior change.^{7,16} Each of these tasks may take longer due to differences in language,^{21,46} health literacy,^{47,48} health beliefs, culture,⁴⁹ and levels of trust.^{38,50} Participatory decision-making may seem unfamiliar to historically marginalized patients.⁵¹ In addition, primary care physicians frequently provide time-consuming mental health counseling to socially disadvantaged patients who do not have access to or are suspicious of psychiatrists or psychologists.⁵² Addressing barriers to specialty referral and adherence takes time.^{53,54}

Closure of the visit – summarizing the diagnosis, treatment plan and follow-up – takes longer when communication barriers are present. Lengthening visits can help; longer visits are associated with increased empowerment among socially disadvantaged patients.⁵⁵

IMPACT ON CARE

There has been little systematic study of 15-minute visits on care for socially disadvantaged patients. However, time-pressured visits contribute to competing demands, clinical inertia, unconscious physician bias and physician-centered communication,⁵⁶⁻⁵⁸ likely contributing disparities in care.⁵⁹ Shorter visits are associated with diminished quality⁶⁰ and discussions of prevention and psychosocial issues suffer.⁶¹ Yet, socially disadvantaged patients receive shorter, not longer visits,^{1,62} and fewer visits per year.⁹

Clinical inertia refers to failure to implement appropriate clinical action in the context of inadequate chronic disease control.^{63,64} Clinical inertia is exacerbated by multiple patient demands and time pressures,⁶⁵ and by physician suspicion of poor adherence.^{66,67} It takes less time to “wait and watch” than to implement a change in treatment plan.

Unconscious stereotypes affect care.⁶⁸⁻⁷⁰ Unconscious bias often emerges during stress and time pressure.⁵⁸ Physicians, challenged to address the complex needs of patients over the course of a few minutes, more readily simplify these mental tasks by resorting to stereotypical thinking. Busy clinicians tend to attend to data that conform to preconceived notions -- e.g., non-adherence⁷⁰ -- on the basis of group membership, and ignore disconfirming data. Additionally, communication with socially disadvantaged patients may result in misinterpretations even when both parties speak the same language.⁷¹ These misinterpretations are likely to result in lack of agreement about the illness, its treatment and the patient's role in care.⁴² Last, when decision-making is rushed, clinical judgment relies increasingly on heuristics – cognitive short-cuts – that often fail to account for individual needs.⁷²

Patient-centered communication mitigates some of the effects of social disadvantage.⁷³ However, patient-centered behaviors -- asking patients about their own beliefs, engaging

patients in collaborative decision making, identifying adherence barriers, confirming patients' understanding, and using interpreters -- take more time.²¹ Perhaps due to time pressure, clinicians engage in less, not more, patient-centered communication with socially disadvantaged patients.⁷⁴

DISPARITIES IN CARE

The potential consequences of 15-minute visits include disparities in patient understanding and satisfaction, low adherence, and suboptimal preventive and chronic disease care.⁷⁵⁻⁸¹ Consequently, socially disadvantaged patients experience more adverse outcomes (e.g. preventable hospitalizations and deaths),^{82,83} and physicians caring for them experience higher burn-out.^{84,85}

These disparities may be avoidable. Findings from randomized trials show that team-based, intensive interventions improve health care quality among socially disadvantaged patients and reduce health care disparities across a range of conditions.⁸⁶⁻⁹⁴ Multifaceted, nurse-led programs, and culturally-sensitive care may also be effective.⁹⁵ However, most of these interventions extended beyond the scope of 15-minute physician-directed office visits. Thus, these findings, from externally funded research projects, require specific translation into clinical practice in terms of implementation of new care models supported by new systems for payment.

CURRENT OPTIONS

There are a handful of options within current health care systems (Table 2). The most obvious are to schedule patients more frequently or for longer visits. However, health plans have increasingly shifted costs onto patients through higher co-payments and reduced coverage,⁹⁶ disproportionately affecting socially disadvantaged patients' ability to see physicians more frequently.^{2,97} In addition, many topics are best addressed in a single visit rather than spread out over a long period.⁹⁸ Visit coding is based primarily on chart documentation rather than on patients needs – e.g. language, health literacy, cultural or adherence barriers; longer visits tend to be under-coded.⁹⁹

Time for paperwork, such as certification of disability or documentation of eligibility for social services, follow-up on abnormal testing, and out-of-visit medication management, is not reimbursed.¹² Electronic medical records can improve documentation and increase reimbursement,¹⁰⁰ but fewer practices serving socially disadvantaged patients have them.^{101,102}

Group visits offer a potentially viable alternative for some patients.¹⁰³ These allow for extended time for teaching, discussion and sharing of experience between patients. However, most health plans do not pay for them and some patients may feel uncomfortable talking in a group about their health or psychosocial concerns.¹⁰⁴

Ultimately, improving care for socially disadvantaged patients requires more than just longer visits. It requires scrapping a care model predicated exclusively on physician-directed, visit-based care and replacing it with a new model; one promising example is the Patient-Centered Medical Home.

PATIENT-CENTERED MEDICAL HOME

The Patient-Centered Medical Home (PCMH) arose from the need for a single clinician or practice to assume responsibility for coordinating the care for children with special health care needs.¹⁰⁵ The purpose of the PCMH is to provide access to primary health care teams built

around patients' needs. It depends on appropriate team training and patient activation and is explicitly designed to enhance patient choice, quality, safety and efficiency. The seven core principles of the PCMH have been endorsed by the major primary care physician organizations and there is growing support for it among payers and Congress.¹⁰⁶ The first six principles represent historic primary care ideals: a personal primary care physician, team-based care directed by a physician, whole person orientation, coordination of all facets of care, focus on quality and safety, and enhanced access to care.¹⁰⁶ The seventh principle, payment reform, provides the means for implementing these principles.¹⁰⁶

The PCMH represents a vision of future care for all patients,¹⁰⁷ and many practices have already begun to adopt many of its features,¹⁰⁸ including the Veterans Administration Health System.¹⁰⁹ It offers particular promise for improving care for socially disadvantaged patients. The following idealized practice illustrates this.

A radically restructured primary care team might consist of one physician, one nurse practitioner (or physician assistant), a patient panel manager, and several registered nurses and medical assistants assigned a defined panel of patients. Tasks are distributed based on capability rather than traditional roles. Patient concerns requiring exploration of new symptoms and concerns are likely addressed in-person with the physician, whereas others may be accomplished through individual or group meetings with nurses and other health professionals.¹¹⁰ Professional language interpreters are universally available and funded. Phone visits,^{111,112} and secure email when feasible, are used for some routine concerns and to monitor progress. The Web can be used to allow direct patient access to their medical records including the ability to update health information¹¹³ as digital technology continues to diffuse to socially disadvantaged populations.¹¹⁴ Importantly, a member of the team, perhaps a nurse, is always available to supplement electronic communications, for example, when patients need to understand test results that are made available via the Web.

These innovations reflect a radical redefinition of the roles of the health care team and patient. Patients are trained to provide critical health and health care updates through various modalities. While many patients communicate electronically with the health care team from home, user-friendly computer kiosks are available in the office for patients who lack reliable web access; these could also be used for in-office demonstrations and training.¹¹⁵ Patients are given access to and education in interpreting their own health records including test results -- a critical step towards patient empowerment.¹¹⁶

Many traditional physician responsibilities are distributed among the health care team to ensure that the physician's time is used wisely -- for example, for the assessment of complex problems, discussion of a new diagnosis, a family meeting or deliberation over treatment options. A medical assistant updates medical data, reviews preventive care, and helps patients identify concerns prior to the physician visit.¹¹⁷ Routine preventive care is provided by the nurse through standing orders, allowing the physician to address more complex or unresolved concerns in greater depth.^{117,118} In the vignette, a certified interpreter would translate for Mrs S and the team would quickly pick up and address her poor preventive and chronic disease care.

Following physician-patient encounters, medical assistants or nurses routinely follow up by phone or in person to elicit the patient's understanding of the diagnoses and treatment plans, correct misunderstandings, and address barriers to care.¹¹⁹ In the case of Mrs S, the nurse, or perhaps even a team pharmacist, would identify less expensive blood pressure medications, link the patient with self-management groups and community resources, even community-based job training for Mrs S's husband.^{120,121} Ideally, Mrs S would feel more empowered to improve her health.

All abnormal laboratory results, preventive and chronic care are tracked using electronic registries and medical records.¹²² Importantly, all members of the care team are expected and paid to meet regularly for patient panel management, e.g. to review reports, recall patients, and implement changes in treatment.¹²³ In the case of Mrs S, the nurse would identify her nonadherence based on review of her electronic medication refill history, and the team would develop a plan for addressing it.¹²⁴ By considering these complex issues outside of time-pressured 15-minute visits, as a team - particularly a culturally diverse one - there is less risk for implicit bias, and more considered deliberation of treatment options using decision-support tools and evidence-based guidelines.¹²³

NEW PAYMENT MODELS

This transformation of primary care requires radical payment reform. Such reform must account for the greater health care needs of socially disadvantaged patients.¹²⁵ Current fee-for-service payment, predicated on performance of a discrete procedure performed on the patient at a single point in time, is a poor fit for primary care.^{107,126} Payment, based exclusively on fee-for-service, is particularly problematic for patients with complex needs who require not only longer visits but also care outside of visits or care by ancillary staff. There is emerging consensus that visit-based payments represent a major obstacle to primary care redesign and quality improvement.¹²⁷ It is less widely recognized that current payment models undermine a core dimension of health care quality – equity.

PCMH principles suggest four potential sources of proposed revenue:¹⁰⁶ 1) current visit-based reimbursement, potentially expanded to include non-face-to-face patient visits; 2) payment for non-visit care such as care coordination, health information technology, remote clinical monitoring, and population-based management; 3) pay-for-performance, e.g. bonuses for improved quality; 4) shared saving from potential reductions in health care costs.

Implementation of PCMH for socially disadvantaged patients requires payments that recognize the actual costs of high quality care for these patients.^{107,125} Currently, such care is currently under-resourced,^{128,129} and consequently often lower in quality.^{130,131}

Ideally, “payments should recognize case-mix differences in the patient population being treated within the practice.”¹⁰⁶ For example, visit-based reimbursement might be based on the time spent with the patient rather than current complex coding formulas. Monthly payments per enrolled patient should be increased according to the social disadvantage (and morbidity) of the patient population,¹⁰⁷ based on relevant sociodemographic data of individual patients or proxy information derived from patient addresses geocoded to Census data.¹³² Several European countries have developed measures to account for social advantage called “deprivation indices” that are used to adjust physician payments.¹³³⁻¹³⁵

Pay-for-performance indices could be made more equitable by comparing practices serving socially disadvantaged patients with each other and by rewarding improvements in performance, in addition to achievement of benchmarks.^{136,137} However, the surest way to improve equity in pay-for-performance, and to avoid the unintended consequence of worsening disparities, is to allocate resources to practices based on patient need. Last, even limited PCMHs can reduce Medicaid costs.¹³⁸ These cost saving should be shared with practices.

PHYSICIAN AND STAFF TRAINING

A new model of primary care health care should ideally free physicians to attend to the most critical areas that patients need and for which they are ideally trained, and free them from tasks that could be accomplished by other members of the team. While structural and financial changes are necessary, they are not sufficient. The health care workforce must be adequately

trained to elicit and provide information effectively, and empower, activate, inform and involve patients in their care.

Physicians need training in new skills,^{139,140} and most importantly, new roles. Physician training may partially mitigate the time pressure. Training in specific communication skills can improve elicitation of patients' concerns^{141,142} and organization of the visit,¹⁴³ while also reducing visit length. Physician training improves patient centered communication skills,¹⁴⁴ empathy,¹⁴⁵ and responsiveness to patients' questions.¹⁴⁶ Specific training in cultural competence may improve communication with socially disadvantaged populations.¹⁴⁷

New communication skills are necessary to facilitate team-based care to optimize care for socially disadvantaged patients.¹⁴⁸ These skills include team leadership and management; panel management; communication within health care teams; giving feedback to co-workers; electronic communication with colleagues and with patients; longitudinal care; collaborating with off-site care managers, patient navigators, interpreters, and families; and customizing risk information to low-literacy patients. In addition, training and guidance by an external change agent may be needed to facilitate practice change.¹⁴⁹

It is especially important to train physicians and other team members to recognize, promote and support patient participation in care, particularly among those who are socially disadvantaged. These changes represent a culture shift from the traditional hierarchies within patient-physician relationships and within members of the health care team. These changes will not come easily and are best initiated early in training.

PATIENT TRAINING AND RESOURCES

Socially disadvantaged patients can be empowered to take more active roles in their care.^{116,150} Individualized patient coaching, use of prompt lists containing commonly-asked questions, and computer programs increase patient participation during visits (e.g., question-asking)¹⁵¹ and potentially improve adherence,¹⁵² symptom control,¹⁵³ and chronic disease outcomes.^{116,154} Decision aids assist informed decision-making; they should be expanded to provide information while also encouraging patients to participate in discussions with their physicians about their care. Furthermore, while increased patient participation may improve care, it may also create tension in the patient-physician relationship¹⁵⁵ unless physicians specifically endorse patient involvement.¹⁵⁶ Although untested, patient activation combined with physician training in organizing the visit has the potential to improve care while also limiting visit time.¹⁴³ Patient training can be effectively integrated at multiple points in care by team members, using various communication modalities. Improvements in technology will facilitate tailoring of training to the culture, language, and health literacy needs of the patient.

PHYSICIAN LEADERSHIP

Practice redesign requires strong physician leadership to implement new systems of care, re-allocate existing tasks, and actively support new models of patient participation in care. Such reforms represent a fundamental cultural shift in the practice of primary care and cannot succeed in the absence of strong physician commitment to reform. Changes in payment models, implementation of health information technology, and training in collaborative care models represent necessary, but not sufficient conditions for new care models. Success will ultimately depend on the willingness of physicians to champion practice redesign and quality, delegate traditional tasks to team members, and create genuine partnerships with historically disadvantaged patients.¹⁵⁷

CONCLUSION

The disparity between patients' needs and the time and resources to meet those needs is greatest for socially disadvantaged patients – exacerbating underlying disparities in access to, process of and outcomes of care. A couple of 15-minute visits per year is too little time to provide patient-centered, evidence-based, safe, high quality care for the average patient and particularly for socially disadvantaged patients. Elimination of health care disparities requires reform of primary care delivery system so that care extends beyond the 15-minute face-to-face visit. Work that had been the exclusive domain of the physician should include multidisciplinary teams caring for patients through multiple modalities. Such radical reform requires drastic changes in the structure of payment for primary care. In particular, health care resources must be allocated according to the health care needs of patients so that practices serving socially disadvantaged patients receive more, not fewer, resources. Only in this way, can primary care “ensure that decisions respect the patients' wants, needs, and preferences and that patients have the education and support to make decisions and participate in care.”¹⁵⁸ However critical, payment reform alone is not enough and transformation of primary care will not come easily. It will require physician leadership and commitment, change in practice culture, new training programs for health care professionals and patients and focused research to optimize models of care for socially disadvantaged patients.

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Table 1
Summary of Key Tasks and Challenges in Care for Socially disadvantaged Patients

KEY TASKS	CHALLENGES
Exchange of Information	
Obtaining history	Higher disease burden, psychological distress and social problems ^{16,28,32,159,160}
Eliciting patients expectations, beliefs, values, perspective	Cross-cultural and educational differences between physician and patient (Social distance) ¹⁶¹
Behavioral risk factor counseling	Higher rates of behavioral risk factors (e.g. poor diet, physical inactivity, smoking) ^{16,162,163}
More intensive and/or complex Treatment	Greater number of symptoms and illnesses ^{25,28,159,160}
Primary care mental health counseling	More emotional distress and less access to mental health treatment ^{16,160,164}
Physical Examination	
More time to explain procedures	Lower health literacy ^{47,48} and language barriers ^{21,46}
Detailed examination	Greater morbidity ²⁸
More time needed to complete examination	Higher levels of functional disability ²⁸
Special equipment to accommodate disabilities	Higher levels of functional disability ²⁸
Patient-Centered Communication	
Establishing rapport and trust	Social and cultural distance and mistrust ^{31,62,161}
Negotiating a visit agenda	Greater number of concerns to be addressed, lower health literacy ^{28,32}
Understanding patient social and family context	Physician bias and misunderstandings more likely, greater need to tailor care to patient's context ^{70,165}
Understanding patients' beliefs, expectations, preferences	Social and cultural distance and patient skepticism of patient's health beliefs ^{161,166,167}
Establishing shared understanding of problem and treatment	Social and cultural distance; prerequisite to patient activation ¹⁶¹
Confirming patient understanding	Differences in language, culture, and health literacy ^{45,168,169}
Assessing and addressing adherence barriers	Financial, cultural, education, social, and logistical barriers ^{53,54}
Non-Reimbursed Care	
Pre-visit planning	More complex visits ^{28,32}
Post-visit planning	Need to confirm patient understanding and address barriers to plan ⁴⁵
Language translation	Lower rates of English proficiency ¹⁶⁸
Care coordination by physician (referrals, correspondence, etc.)	Greater illness burden and psychosocial problems, more access barriers ^{28,32,130}
Assisting high risk patients in navigating the system	Higher rates of HIV, cancer, diabetes, asthma ⁸⁶
Establishment and maintenance of tracking registry	Worse control of chronic disease ^{170,171}
Improving access to care	Greater need for patient outreach ⁸⁶
Patient self management training	Greater need for outreach to patients in need of care ¹⁷²⁻¹⁷⁴
Form completion	Higher rates of disability, involvement with social services, criminal justice system, drug treatment programs ^{28,175,176}

Table 2**Strategies for Caring for Socially disadvantaged Patients under Current System**

STRATEGY	BENEFIT	LIMITATIONS
Improve billing coding	Higher reimbursement for longer visits. Code for counseling based on time.	Costs of communication across language, culture and health literacy not covered. More time needed for documentation
Schedule more frequent visits	Spreads care out over more visits, allowing for more focused visits.	Greater financial and time costs to the patient
Refer patient for care coordination, navigation, language translation	Provides key resources not widely available in primary care	Requires separate funding e.g. Ryan White for HIV, ACS for cancer
Pay-for-performance	Focuses on improve performance for selected measures	Fails to consider additional difficulty and costs of improving quality among socially disadvantaged populations. Neglects unmeasured, but important tasks
Limited capitation	Allows for care to be based on patient needs rather than based on visits	Requires consideration of actual costs of delivering high quality care. Not widely available
Patient coaching	Improvement in patient self-efficacy and skills	Requires staff training Not currently reimbursed
Patient registry	Allows identification of patients in need of intervention. Extends care out of visit	Requires electronic infrastructure and staff training. Not directly reimbursed
Pre-visit team huddles	Allows for pre-visit team planning	Requires change in routine and few extra minutes before visits
Standing orders	Minimize potential bias and decompresses visits.	Requires identification of patients in need of intervention and physician delegation.
Resource list including low-cost medications and community agencies	Allows easy access to key resources for socially disadvantaged patients	Time required to develop and maintain lists
Physician training in PCMH including key communication skills	Provides more efficient and optimal use of visit time Physician better equipped to work with activated patients Improved team function	Not widely offered in either medical undergraduate or graduate training
Recruitment of diverse staff	Improves cultural diversity of team	May require extra recruitment effort

Table 3**The Patient-Centered Medical Home of the Future for Socially Disadvantaged Patients**

FEATURE	PURPOSE	STAGE OF DEVELOPMENT	EVIDENCE-BASE	FUNDING
Open Access	Provides care when patient needs it.	Increasingly used by practices including many safety net practices such as federally qualified health centers ^{108,177}	Case studies show reductions in no shows and improvements in preventive care ^{177,178}	No additional funding required, but adequate staffing necessary to ensure success
Phone, email or other visits	Tailors communication modality to the needs of the patient. May be particularly helpful for patients with limited mobility, transportation, or job constraints.	Phone visits not widely used outside of staff model HMOs. Email visit/consultations slowly growing ¹⁷⁷	Shown to improve outcomes for preventive care and depression ^{112,179,180}	Not widely reimbursed by payers, but support is growing.
Sharing clinician visit tasks with nurse or medical assistant	Designed to delegate tasks required less training freeing up clinician for more complex tasks. Potentially helpful for patients with low health literacy	Currently being piloted in a few practices. Limited version, ¹²³ e.g. previsit huddles between care team members becoming more widely used	Nurse-based management shown to decrease disparities, ⁹⁵ but little data regarding "teamlets". ¹¹⁷	Not currently funded though costs could theoretically be offset by increased number of visits
Patient tracking registries	Can easily identify patients in need of an intervention	Widely used by federally qualified health centers ¹⁸¹	Improve in quality of care for socially disadvantaged patients ^{88,112,182}	Not directly funded. Many EHRs lack adequate registry functions ¹⁰⁰
Population management	Care based on registry data provided outside of usual visits. Particularly helpful among socially disadvantaged patients who are lost to follow-up. Potentially could reduce bias	Currently being piloted by staff model HMOs.	Case studies show promise ¹⁸³	Not currently funded
Intensive individual education	Matches intensity of education to needs. Helpful for low health literacy patients	Used in multiple clinical trials, but not widely used in primary care	Shown to decrease disparities in control of HTN, DM, and HIV, but little data from primary care ^{92,94,184}	Not widely funded
Group visits	Provides more intensive training patient self management in group setting	Being piloted in selected practices including safety net ones across the country	Good evidence for patient self-management. ¹⁸⁵ Emerging evidence for group visits. ¹⁰³	Not widely funded.
Portable patient health record	Increase participation of patient in own care. Potentially helpful for disempowered and mobile patients	Currently in development.	Unknown	Not currently funded

FEATURE	PURPOSE	STAGE OF DEVELOPMENT	EVIDENCE-BASE	FUNDING
Patient decision aids	Tailored information to needs of patient. Can designed to address needs of patients with low health literacy or limited English proficiency	A number of decision aids have been studied but have not widely used in practice	Shown to improve patient knowledge, feeling informed and clarification of values. ¹⁸⁶	Not currently funded
Collaborative mental health care	Provides mental health care within primary care — particularly for hard to reach patients	Not widely used outside of staff model HMOs.	Shown to improve functional outcomes ¹⁸⁷	Not currently funded
Language translation	Provides communication for patients with limited English proficiency	Primarily used by hospitals and health centers. Not widely used in physician offices	Shown to improve patient satisfaction and outcomes ¹⁸⁸	Not currently funded
Patient navigation	Provides assistance in coordination of care through fragmented system. Particularly helpful for socially disadvantaged patients	Primarily used for HIV and cancer.	Emerging evidence, ¹⁸⁹⁻¹⁹¹ large studies are in progress	HIV navigation funded through Ryan White. Patient navigation funded through private foundations such as ACS or through research (NCI) or demonstration projects (CMS)